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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Mark L Watson
Blakely Sokoloff Taylor & Zafman LLP
12400 Wilshire Boulevard
Seventh Floor
Los Angeles, CA 90025-1026

EXAMINER

HYUN, SOON D

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/625,664

Applicant(s)

HUNG ET AL.

Examiner

Soon D Hyun

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-10, 12-18 and 20-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10, 12-18 and 20-22 is/are rejected.
- 7) ☒ Claim(s) 23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 1-10, 12-18 and 20-22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 1, 13, and 14 are objected to because of the following informalities.

All instances of "adaptable to" in each claim should be deleted to make the claim positive. Language such as "adapted to/for", "configured to/for", or arranged to/for" (or similar phrases such as "enabled to", "capable of", etc.) is not considered positive recitation per MPEP 2106.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 22, respectively, recite the limitation "the last logical memory device" in line 2. There is insufficient antecedent basis for this limitation in the claim.

It is not clear what is meant by "the last logical memory device" and what is disclosed in the specification for the claimed element.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 2-4, 9, 10-15, and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Beshai et al (U.S. Patent No. 6,721,271).

Regarding claim 2, Beshai et al (Beshai) discloses a system comprising:

a memory (N numbers of 66 in FIG. 7), wherein the memory includes a plurality of logical memories devices (66 in FIG. 7); and

a network switch (30 in FIG. 1) coupled to the memory, wherein the switch to write a first portion of received packet data to a first of the plurality of logical memory devices and to write a second portion of the packet data to a second of the plurality of logical memory devices and to write a third portion of the packet data to a third of the plurality of logical memory devices (col. 10, line 48-col. 11, line 60).

Regarding claim 3, Beshai further discloses that the network switch further comprises a memory controller (ingress rotator or egress rotator 63 in FIG. 7)

Regarding claim 4, Beshai further discloses the ingress rotator and the egress rotator that are equivalent to a first memory controller component and a second memory controller component, respectively, as recited in the claims.

Regarding claim 9, Beshai discloses that the network switch further comprising:
a receiver (an egress module 36 to receive data from the memory device))
coupled to the memory controller;

a transmitter (an egress module 36 to transmit data to the outgoing links 42)
coupled to the memory controller;

address resolution logic (inherently required to read and write data) coupled to
the memory controller; and

packet queuing control (inherently required to store the data in the memory
device) coupled to the memory controller, the receiver, the transmitter, and the address
resolution logic.

Regarding claim 10, Beshai further discloses a media access controller (MAC)
(an egress rate controller (FIG. 1).

Regarding claim 12, Beshai et al (Beshai) discloses a network switch (30 in FIG.
1) comprising:

a first media access controller (MAC) (an egress module 36 in FIG. 1) coupled to
a plurality of ports;

a receiver (an ingress module 32) coupled to the first MAC; and

a memory controller (ingress rotator 63 in FIG. 7) coupled to the receiver,

wherein the memory controller to write a first portion of received packet data to a first of

Art Unit: 2663

the plurality of logical memory devices and to write a second portion of the packet data to a second of the plurality of logical memory devices and to write a third portion of the packet data to a third of the plurality of logical memory devices (col. 10, line 48-col. 11, line 60).

Regarding claims 20, Beshai discloses a method comprising:

receiving a first data packet at a network switch (30 in FIG. 1);

writing a first portion of the first data packet to a first logical memory device (first 66 in FIG. 7) coupled to the network switch;

writing a second portion of the first data packet to a second logical memory device (second 66 in FIG. 7) coupled to the network switch; and (col. 10, line 48-col. 11, line 60); and

writing a third portion of the first data packet to a third logical memory device (third 66 in FIG. 7) coupled to the network switch. See col. 10, line 48-col. 11, line 60.

Regarding claim 15, refer to the discussion for the claims 1, 4, and 12.

Regarding claim 21, Beshai further discloses a method comprising:

receiving a second data packet at the network switch; and

writing a first portion of the second data packet to the first logical memory device;

writing a second portion of the second data packet to the second logical memory device (col. 10, line 48-col. 11, line 60).

Regarding claims 13 and 14, refer to the discussion for the claims 12, 20, and 21.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5-7 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beshai et al (U.S. Patent No. 6,721,271).

Regarding claims 5 and 16, Beshai et al (Beshai) does not explicitly teach that the first memory controller component and the second memory controller component access the corresponding logical memory devices via a shared address line. However, it would have been obvious to one having ordinary skill in the art to use a shared address line (bus) to simplify a circuit for a memory access.

Regarding claims 6, 7, 17 and 18, Beshai does not explicitly teach that the memory comprises SDRAMs and/or SSRAMs. However, it would have been obvious to one having ordinary skill in the art to use SDRAMs and/or SSRAMs for the memory to increase access speed.

Allowable Subject Matter

9. Claims 23 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2663

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon-Dong Hyun whose telephone number is (703) 305-4550. The examiner can normally be reached on Monday-Friday from 8:30 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen, can be reached on (703) 308-5340.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

11. Any response to this action should be mailed to:

Commissioner for Patents


P.O. Box 1450

Alexandria, VA 22313-1450

Or faxed to: 703-872-9306 for formal communications intended for entry with a label of "OFFICIAL" and for informal or draft communications with a label of "PROPOSED" or "DRAFT" (attn: Art Unit 2663, Soon-Dong Hyun).


S. Hyun

06/25/2004


CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600